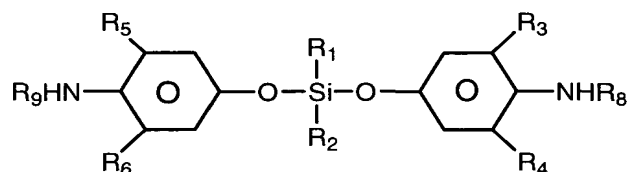


CLAIMS

What is claimed is:

1. An apparatus comprising:
a first substrate comprising a first set of contact points;
a second substrate comprising a second set of contact points coupled to the first substrate through interconnections between a portion of the first set of contact points a portion of the second set of contact points; and
a composition disposed between the first substrate and the second substrate comprising a siloxane-based aromatic diamine.
2. The apparatus of claim 1, wherein the composition comprises a reaction product between a siloxane-based aromatic diamine and an epoxy resin.
3. The apparatus of claim 2, wherein the siloxane-based aromatic diamine has a formula:



Formula I

wherein groups R₁ and R₂ are independently selected from a hydrogen, an alkyl, a substituted alkyl, a cycloaliphatic, an alkyl ether, an aryl, a substituted aryl moiety, and an —OR moiety, wherein R₇ is selected from an aliphatic and an aromatic moiety, wherein groups R₃, R₄, R₅, and R₆ are independently selected from a hydrogen, an alkyl, a substituted alkyl, a cycloaliphatic, an alkyl ether, an aryl, and a substituted aryl moiety, and wherein groups R₈ and R₉ are independently selected from a hydrogen, an alkyl, a cycloaliphatic, an alkyl ether, an aryl, and a substituted aryl moiety.

4. The apparatus of claim 3, wherein groups R₁ and R₂ comprise a methyl moiety, groups R₃, R₄, R₅, and R₆ comprise a hydrogen moiety, and groups R₈ and R₉ comprise a hydrogen moiety.
5. The apparatus of claim 3, wherein groups R₁ and R₂ comprise a methyl moiety, groups R₃ and R₅ comprise a hydrogen moiety, groups R₄ and R₆ comprise a propyl moiety, and groups R₈ and R₉ comprise a hydrogen moiety.
6. The apparatus of claim 3, wherein groups R₁ and R₂ comprise a methyl moiety, groups R₃, R₄, R₅, and R₆ comprise a methyl moiety, and groups R₈ and R₉ comprise a hydrogen moiety.
7. The apparatus of claim 3, wherein groups R₁ and R₂ comprise a methyl moiety, groups R₃, R₄, R₅, and R₆ comprise a propyl moiety, and groups R₈ and R₉ comprise a hydrogen moiety.
8. The apparatus of claim 3, wherein groups R₁ and R₂ comprise a methyl moiety, groups R₃, R₄, R₅, and R₆ independently comprise one of a hydrogen moiety and a C₁ to C₆ alkyl moiety, and groups R₈ and R₉ comprise a hydrogen moiety.
9. The apparatus of claim 3, wherein one of groups R₁ and R₂ comprises a methyl moiety and the other comprises a phenyl moiety, groups R₃, R₄, R₅, and R₆ comprise a hydrogen moiety, and groups R₈ and R₉ comprise a hydrogen moiety.
10. The apparatus of claim 3, wherein one of groups R₁ and R₂ comprises a methyl moiety and the other comprises a phenyl moiety, groups R₃, R₄, R₅, and R₆ independently comprise one of a hydrogen moiety and a C₁ to C₆ alkyl moiety, and groups R₈ and R₉ comprise a hydrogen moiety.
11. The apparatus of claim 3, wherein one of groups R₁ and R₂ comprises a methyl moiety and the other comprises a an —OR₇ moiety, wherein R₇ comprises an amine,

groups R₃, R₄, R₅, and R₆ independently comprise one of a hydrogen moiety and a C₁ to C₆ alkyl moiety, and groups R₈ and R₉ comprise a hydrogen moiety.

12. The apparatus of claim 1, wherein the second substrate comprises an integrated circuit.

13. The apparatus of claim 1, wherein the first substrate comprises a circuit package and the second substrate comprises a printed circuit board.

14. An electronic assembly comprising:
a first substrate comprising a first set of contact points;
a second substrate comprising a second set of contact points coupled to the first substrate through interconnections between a portion of the first set of contact points a portion of the second set of contact points;
a composition disposed between the first substrate and the second substrate comprising a siloxane-based aromatic diamine; and
a power source coupled to one of the first substrate and the second substrate.

15. The apparatus of claim 14, wherein the second substrate comprises an integrated circuit.

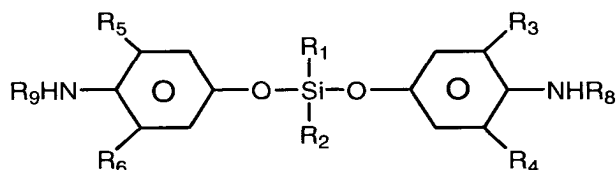
16. The apparatus of claim 14, wherein the first substrate comprises a circuit package and the second substrate comprises a printed circuit board.

17. A method comprising:
introducing a composition comprising a siloxane-based aromatic diamine in a flowable state between a first substrate comprising a first set of contact points and a second substrate comprising a second set of contact points coupled to the first substrate through interconnections between a portion of the first set of contact points a portion of the second set of contact points; and
curing the composition.

18. The method of claim 17, wherein curing the composition comprises curing at a temperature less than a solder reflow temperature.

19. The method of claim 17, wherein prior to introducing the composition, the method comprises combining a siloxane-based aromatic diamine with an epoxy.

20. The method of claim 17, wherein the siloxane-based aromatic diamine has a formula:



Formula I

wherein groups R₁ and R₂ are independently selected from a hydrogen, an alkyl, a substituted alkyl, an aryl, a substituted aryl moiety, and an —OR₇ moiety, wherein R₇ is selected from an aliphatic and an aromatic moiety,

wherein groups R₃, R₄, R₅, and R₆ are independently selected from a hydrogen, an alkyl, a substituted alkyl, an aryl, and a substituted aryl moiety, and

wherein groups R₈ and R₉ are independently selected from a hydrogen, an aliphatic, and an aromatic moiety.